LOS ANGELES REGIONAL BOARD SEP LIST
RESOLUTION NO. 02-016

No.	PROJECT	PROPONENT & CONTACT	WATERSHED	SEP CATEGORY	COST	FUNDING RECEIVED	REMAINING COST	TIME FRAME
1.	Pesticide Free Vegetation Management	City of San Buenaventura Ms. Vicki Musgrove (805) 654-4518	Ventura Coastal	Pollution Prevention	$50,000	NO	$50,000	48 months
2.	Coastal Water Quality Improvement Study	City of San Buenaventura Ms. Vicki Musgrove (805) 654-4518	Ventura Coastal	Pollution Prevention	$110,000	YES	$12,606	1 year
3.	Bouquet Creek Acquisition and Restoration	City of Santa Clarita Ms. Heather Merenda (661) 284-1413	Santa Clara River	Environmental Restoration	$104,525	YES	$101,525	1 to 2 years
4.	Eslmere Canyon 40 Acres of Wetland Purchase	City of Santa Clarita Ms. Heather Merenda (661) 284-1413		Environmental Restoration	$332,710	NO	$332,710	1 to 2 years
5.	Industrial Urban Wildlife Corridor Greening Phase II of Green Map	Santa Monica Bay Audubon Society Ms. Jean Garett (310) 275-4141	Santa Monica Bay	Public Awareness (Education)	$55,000	NO	$55,000	9 months
6.	Santa Monica Bay Environmental Observatory	UCLA Dr. Keith D. Stolzenbach (310) 206-7624	Santa Monica Bay	Watershed Assessment	$495,000	NO	----	5 years
7.	Seasonal Bacteria Study	Southern California Marine Institute Ms. Carrie Wolfe (310) 519-3181 **REMOVE FROM**	Dominguez Channel; LA & LB Harbors; LA River; San Gabriel River **SEP LIST**	Watershed Assessment **FUNDING**	$14,420.42 **COMP**	YES **LETED**	$11,420.42	1 year
8.	Monitoring Grunion Spawning Populations & Eggs	Pepperdine University Ms. Karen Martin, Ph.D. (310) 506-4808	Malibu Creek and Arroyo Sequit	Environmental Auditing	$95,521	NO	$95,521	3 years
9.	Santa Monica Bay and Malibu Watershed GreenMap Phase I	Resource Conservation District of the Santa Monica Mountains Ms. Melissa Cole Johnson (310) 455-1030 ext. 104	Malibu Creek	Public Awareness (Education)	$110,000	NO	$110,000	9 months
10.	Living Lightly in Our Watersheds- A Guide for Residents	Resource Conservation District of the Santa Monica Mountains Ms. Melissa Cole Johnson (310) 455-1030 ext. 104	Malibu Creek	Public Awareness (Education)	$20,000	NO	$20,000	6 months for printing
11.	Storm Drain Keeper Program	Oxnard City Corps Ms. Sally Coleman (805) 654-5051	Channel Islands Beach Park & Hobie Beach	Pollution Prevention	$155,000	YES	$149,000	On-going as long as funding is available
12.	Kelp Restoration	Santa Monica BayKeeper Ms. Angie Bera (310) 305-9645 ext. 3	Santa Monica Bay	Environmental Restoration	$52,000	YES	$46,000	1 year or until Kelp is returned to original state
13.	Methodology for Prioritizing Structural BMP Projects in the LA Region with an Applied Example in the Ballona Creek Watershed	Heal the Bay Ms. Mary Leath (310) 453-0395 ext. 142 **REMOVE FROM**	Ballona Creek **SEP LIST**	Pollution Prevention **Funding**	$266,115 **Complete**	NO **Through**	---- **Prop 13**	12 months ----------
14.	Coastal Cleanup Day- Santa Monica Bay Watershed	Heal the Bay Ms. Mary Leath (310) 453-0395 ext. 142	Region Wide	Environmental Restoration	$55,780	YES	$0	12 months

Last Update: November 5, 2002

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No.	PROJECT	PROPONENT & CONTACT	WATERSHED	SEP CATEGORY	COST	FUNDING RECEIVED	REMAINING COST	TIME FRAME
15.	Community-Based Public Awareness/Education and Outreach	California Green Works Mr. Mike Meador (714) 523-7292	Compton Creek	Public Awareness (Education)	$174,000	NO	$174,000	3 years
16.	Public Involvement and Education (PIE) Program	Santa Monica Bay Restoration Project Ms. Stephanie Katsouleas (213) 576-6641	Region Wide	Environmental Restoration; Environmental Education; and Pollution Prevention	$160,000	NO	$160,000	18 months
17.	Beach Volunteer Monitoring Program	Santa Monica BayKeeper Ms. Angie Bera (310) 305-9645 ext. 3	Santa Monica Bay	Environmental Restoration	$51,500	NO	$51,500	1 year
18.	Wet Weather Modeling of the Dominguez Channel Integrated Watershed	Southern California Coastal Water Research Project Mr. Ken Schiff (714) 372-9202	Dominguez Channel	Environmental Restoration	$354,338	YES	$271,278.42	2 years
19.	Wet Weather Modeling of the Los Angeles River Integrated Watershed	Southern California Coastal Water Research Project Mr. Ken Schiff (714) 372-9202	Los Angeles River	Environmental Restoration	$466,656	YES	$448,656	3 years
20.	Ventura River Watershed Monitoring Program	Santa Barbara ChannelKeeper Ms. Jessie Alstatt (805) 563-3399	Ventura	Watershed Assessment	$79,249	NO	$79,249	1 year

1) **Project:** Pesticide Free Vegetation Management Project

Proponent: *The City of San Buenaventura*

Description: This project entails the purchase of equipment required to begin converting the present pesticide dependent vegetative management program to a management program primarily consisting of a Waipuna Hot Foam System.

The project consists of:

- purchasing the Waipuna Hot Foam System equipment which:
  - utilizes hot water and biodegradable foam and
  - immediately breaks down the cellular structure of the plant.
- attempting to eliminate the annual application of over 250 gallons of a glysophate-based herbicide in the City;

- permanently eliminating a pollutant source from the City's storm drain system;
- and demonstrating the feasibility of minimizing pesticide use through the utilization of an alternative vegetation management program.

The project time-line from the purchase of the Waipuna Hot Foam System to city-wide project implementation is 48 months.

2) **Project:** Coastal Water Quality Improvement Study

Proponent: *The City of San Buenaventura*

Description: This study will identify a means to improve coastal water quality presently affecting popular swimming beaches in the City of Ventura. The purpose of this study is to find an effective solution to improve coastal water quality and to prepare preliminary design plans for implementing the solution.

The project consists of:

- Identifying dry weather sources and eliminating them to the maximum extent practicable;
- evaluating low flow end-of-pipe treatment methods including ultraviolet treatment, ozone treatment or diversion to the wastewater treatment plant; and
- evaluating the results of weekly ocean water testing to measure project success.

The project time-line is one year.

3) **Project:** Bouquet Creek Acquisition and Restoration

Proponent: *City of Santa Clarita*

Description: The City will restore a section of Bouquet Creek that flows through Central Park. The proposed project has three goals:

- preserve the natural riparian habitat existing in Bouquet Creek by developing an ongoing conservation plan;

- enhance water quality through enhanced infiltration, percolation and recharge; and
- develop a public outreach component to educate the community regarding the local hydrological cycle as well as biota existing in Bouquet Creek.

The intention of the conservation plan is to not only preserve the natural habitat present on the existing property but to ensure that the property remains unchanneled. The preservation of the natural riparian habitat will directly enhance two water quality characteristics: 1) enhanced filtration and prevention of downstream transport of pollutants and 2) enhanced percolation and recharge of the Saugus Aquifer. Preservation of the site will reduce pollutants due to urban storm water runoff, sediment, trash and debris downstream into the Santa Clara River. The section of Bouquet Creek being addressed in the proposal is the only section of the creek that remains unchanneled.

The project timeframe is one to two years.

4) **Project:** Purchase 40 acres of wetland/riparian areas in Elsmere Canyon potentially threatened by development of a landfill

Proponent: *City of Santa Clarita*

Description: The City will purchase 40 acres of wetland/riparian areas in Elsmere Canyon. The 40 acres of wetland/riparian areas the City is purchasing is potentially threatened by the development of a landfill. The land is critical for wildlife movement between the San Gabriel Mountains and the Santa Susana Mountains, water supply for wildlife in an arid climate, and preservation of Santa Clara tributaries. The goals of this project are to:

- prevent Elsmere Canyon from being used as a landfill;
- continue to allow this canyon to act as a wildlife habitat;
- help preserve rare and endangered species, migratory habitat and wetlands habitat in the last natural river left in southern California; and
- help provide a stewardship ethic to the community to appreciate open and natural spaces.

The project timeframe is one to two years.

5) **Project:** Industrial Urban Wildlife Corridor Greening Project

Proponent: *Santa Monica Bay Audubon Society*

Description: This project will produce a storm water percolation/habitat restoration kit and GreenMap for the greening of impervious surfaces within a pre-designated Urban Wildlife Corridor for Phase II of the GreenMap Project. The goals of this project include:

- transforming the large expanses of inhospitable land into jeweled parking orchards (parking lots with planted trees to help reduce the heat effect and swales that carry rain run-off)
- transforming the large expanses of inhospitable land into landscaped storage facilities;
- planting native species of shrubs and wildflowers to assist the repopulation of native birds and butterflies;
- building of animal bridges/tunnels to assist the safe passage of amphibians; and
- having the green corridor serve as a finger that connects the increasingly isolated tracts of natural open space, allowing for cross-pollination.

The documents that will be used to produce the kit and the GreenMap, are designed to help residents of all ages throughout the watersheds expand and implement a vision of a more secure, healthful and sustainable community. The documents will be produced by students and presented to the property business owners. The map will demonstrate to the businesses the variety of ways that storm water has and can be treated on site and that habitat can be created at the same time without loss of functionality.

The project time-line is nine months.

6) **Project:** Santa Monica Bay Environmental Observatory

Proponent: *University of California, Los Angeles*

Description: This project will establish an ongoing coordinated observational and modeling program focused on the water quality of Santa Monica Bay. The major goals are to:

- measure and forecast oceanographic and water quality conditions in Santa Monica Bay and the nearby regions of the Southern California Bight for the purpose of making possible more effective decisions regarding the management of environmental resources in the bay;
- make the results of the measurement and modeling efforts available to citizens, particularly students of all ages, to promote public awareness of water quality issues and natural variability in the Santa Monica Bay and nearby coastal waters. The development of a GIS database to make it possible for individuals to conduct customized analyses; and
- contribute to the scientific understanding of physical and biogeochemical processes in the coastal waters that are important in determining the fate and transport of pollutants, and natural cycles in Santa Monica Bay.

The proposed project consists of a combination of measurements from different platforms and are combined with computer modeling:

- instrumental buoy;
- instrumental shoreline station;
- boat;
- satellite; and
- modeling.

The project time-line is five years.

7) **Project:** Seasonal Bacteria Study

Proponent: *Southern California Marine Institute*

Description: The amount of total and fecal coliform bacteria in southern California rivers and coastal waters may be dependent on season and on rainfall. Seasonal environmental auditing of local rivers, harbors and ocean will provide insight into coliform and enterococcal bacteria content.

The goals of the project include:

- monitoring the bacterial quantity as it goes downstream and enters harbors and local recreation areas;
- monitoring each site during the months of November, February, May, August and after the first flush (> 1.5 inches rainfall);
- determining if bacteria concentrations change with location and season.
- providing narrative and numerical bacteriological data for ten sample sites over five discrete times (November, February, May, August and after the first flush) over the course of a year; and
- reporting this information to the LARWQCB, water quality affiliates, and the local community via the final report of this project.

Information collected from this study will be disseminated to K-12 and university students in the Southern California area as part of the science curriculum. The information will be shared with SCMI's ecopartners, including Heal the Bay, Surfrider, CoastKeeper and Environment Now.

The project time-line is one year.

8) **Project:** Monitoring Grunion Spawning Populations and Eggs on Sandy Beaches in Northern Los Angeles

Proponent: *Pepperdine University, Dr. Kari Martin*

Description: This study will be conducted to assess the status of the grunion fish populations by observing spawning runs and observing the eggs during incubation in the sand. These beach habitats are subjected to a variety of runoff regimes, including natural storm water, urban runoff, septic systems, and local water treatment plants, as well as tidal influences and storm swells. No previous research has examined the effects of different runoff regimes on grunion reproduction. Because grunion are uniquely exposed and vulnerable to beach conditions, they may serve as an indicator species for the health of the sandy beach habitat. The goals of the study are to:

- to monitor the status of grunion populations arriving for spawning runs at four sandy beaches in Santa Monica Bay- Leo Cabrillo State Beach, Paradise Cove, Malibu State (Surfrider) Beach and Las Flores Beach;
- to monitor the amount and extent of eggs deposited by grunion on four sandy beaches after the spawning runs;
- to monitor the development of grunion eggs in situ on sandy beaches over the course of their incubation and in the laboratory, making observations on concurrent runoff regimes;
- to develop information for public awareness and education about the grunion;
- to create and maintain a database for grunion spawning runs at multiple locations;
- to compare grunion reproduction at four different beaches within each year; and
- to compare each beach for grunion reproductive success across three years.

Project timeframe is for three years during peak spawning times, April, May and June. The project timeframe is relevant since three to four years is comparable to the life span of a grunion fish.

9) **Project:** Santa Monica Bay and Malibu Creek Watershed GreenMap Phase I

Proponent: *Resource Conservation District of the Santa Monica Mountains*

Description: The purpose of this project is to create a two-sided Green Map displaying ecological resources of the Malibu Creek Watershed on one side, and the entire Santa Monica Bay on the other. The map will locate and display general ecological features, such as important waterways, polluted or toxic sites, sewage systems, public lands, alternative transportation corridors, wildlife migration routes, etc. The map will also include features and information about kelp reforestation, Malibu Lagoon habitat and restoration opportunities, Heal the Bay's Stream Health Index, non-native invasive plants, dam removal, green businesses, local environmental organizations, wetlands, green architecture, stands of native plants and drainage areas. The map will be posted to various websites.

Long-term goals of the project include:

- reduction of pollution associated with urban runoff;
- reduction of water use;
- identification and expansion of green corridors for wildlife;
- increased numbers of "green businesses";
- reductions in solid waste sent to landfills; and
- increases in bicycle and pedestrian traffic.

Project timeframe is nine-months.

10) **Project:** Living Lightly in Our Watersheds- A Guide for Residents

Proponent: *Resource Conservation District of the Santa Monica Mountains*

Description: The Guide is an educational guide for residents of the Malibu Creek Watershed and unincorporated LA County within the Santa Monica Mountains. The Guide provides education on storm water protection through waste reduction. The Guide will be mailed to every resident in the Malibu Creek Watershed and is targeted to both rural and urban residents (40,000 people). The Guide describes the watershed concept, and points out ways for every resident to control non-point sources of pollution. The goals of the project include:

- educating all watershed residents about their contribution to watershed health; and
- giving people the tools to do things differently.

This guide makes it easier for residents to keep trash out of the storm drain system, plant an organic/native garden, buy responsibly, etc.

The Guide will be ready for printing and mailout by June 2002.

11) **Project:** Storm Drain Keeper Program

Proponent: *Oxnard City Corps*

Description: The Channel Islands Harbor is under particular public scrutiny due to the presence of the two most polluted beaches in Ventura county: Channel Islands Beach Park (locally known as "Kiddie" Beach) and Hobie Beach. Trash and debris in the storm drains throughout the cities of Oxnard and Port Hueneme are a major source of non-point source pollution. Ormond Beach and Wetlands encompass 2500 acres including pristine wetlands, dunes, uplands and habitats for over ten federally and state-listed threatened and endangered species.

The goals of the program include:

- teaming up with Ventura County Flood Control District to form the Storm Drain Keeper Program;
- funding the Oxnard City Corps to pay four teenagers to help protect the Channel Islands Harbor (303-d listed water body), Ormond Beach and the Ormond Beach Wetlands by patrolling and cleaning specific storm drains;
- hiring at-risk youth within Oxnard from the ages of 14 to 21 and provide them with needed job skills;
- training the teens on safety and technical information on a monthly basis; and
- giving the teens mentor positions within their own communities, thus educating their friends family and other community

members about important environmental issues.

Project time frame is ongoing as long as funding is available.

12) **Project:** Kelp Restoration Project

Proponent: *Santa Monica BayKeeper*

Description: Kelp forests provide critical habitat and protection for over 800 marine species. The program's objectives are to:

- expand the BayKeeper's kelp restoration work to three additional sites along the Malibu coastline to the Santa Monica Bay by:
    1. returning kelp populations to where they once existed;
    2. transplanting fertile drift kelp to act as a natural spore source to the area;
    3. selecting three restoration sites based on historical kelp coverage to date; and
    4. monitoring of the sites during all phases of restoration.

- augment the Baykeeper's current mariculture facility in order to rear lab-grown kelp plants through the '"sub-adult" stage by :
    1. designing and constructing a regional mariculture facility located at the Southern California Marine Institute; and
    2. maintaining the lab, which will be one of the largest kelp cultivation systems in the country and kelp grown here will be used at Malibu restoration sites.

- assess the biological structure and stability of kelp habitats throughout the Santa Monica Bay by:
    1. reassessing the overall health and community structure of kelp beds in Santa Monica Bay;

2. conducting subtidal monitoring which will be used to quantify the persistence of kelp populations and their associated assemblages of resident organisms; and
3. utilizing trained volunteer divers to conduct roving fish counts and invertebrate sampling at each site to determine animal diversity and abundance in kelp beds.

Project timeframe is one-year, however the SMBK will continue the project until Kelp Forests are returned to their previous state.

13) **Project:** Methodology for Prioritizing Structural BMP Projects in the Los Angeles Region with an Applied Example in the Ballona Creek Watershed

Proponent: *Heal the Bay*

Description: The project will assist in the implementation of the storm water pollution prevention program in Los Angeles County. Structural Best Management Practices (BMPs) will play a critical role in solving the urban runoff pollution throughout Los Angeles. Current BMP implementation is primarily driven by the TMDL process, which focuses on one pollutant and one water body at a time. Both dry and wet weather runoff have been found to be potentially toxic to aquatic life. Beaches adjacent to flowing storm drains often have fecal bacteria indicator densities that exceed California bathing water standards, and over two-thirds of Los Angeles County's local beaches have poor water quality during and within three days of a rain storm. The project will result in two work products:

1. a methodology for prioritizing the implementation of structural BMPs in Los Angeles County, which will include supporting documentation and a guidance document'; and

2. a report that details the application of this methodology to the Ballona Creek watershed, including site-specific, prioritized BMPs for the watershed.

Other goals of the project include:

- an optimized plan for BMP implementation in the Ballona Creek watershed that specifically identifies BMP type and location;
- a partial list of structural BMPs that will be evaluated for use in Los Angeles County. These include:
    1. extended detention basins;
    2. bioswales;
    3. biofiltration systems;
    4. media filters;
    5. catch basin inserts;
    6. continuous deflective systems;
    7. alternative trash collection systems;
    8. storm water wetlands;
    9. underground vaults;
    10. dry-weather diversions; and
    11. other dry-weather flow treatment options.
- a workshop to introduce watershed stakeholders in Ballona Creek to the implementation plan
- soliciting comments on the project
- a GIS system will be set up to include the following:
    1. land-use pollutant generation rates;
    2. BMP effectiveness;
    3. BMP implementation issues; and
    4. using receiving water issues to help initially identify and target the potential BMPs on more general basis.
- the GIS system will be used to specifically site and select BMP types at:
    1. outfall locations;
    2. pollutant sources; and
    3. water quality impairments.

Project time frame is twelve-months.

14) **Project:** Coastal Cleanup Day- Santa Monica Bay Watershed

Proponent: *Heal the Bay*

Description: The project will consist of the annual Coastal Cleanup Day held in September. Heal the Bay coordinates the event for over 50 locations at beaches and inland sites in Los Angeles County. The cleanup not only removes tons of trash and recyclables from beaches and water bodies, but also educates tens of thousands of participants about water pollution and what they can do to prevent it. The primary goals for Coastal Cleanup Day are to:

- raise awareness and educate the public about the causes and consequences of ocean pollution with emphasis on how they can make a positive difference;
- immediately improve the water and habitat quality through the removal of trash and debris along the coast and in the watershed;
- researching new sites, especially important to achieve goal of reaching more inland communities;
- recruiting volunteers through mailings, outreach to community groups, and community meetings;
- training key volunteers and captains (120 volunteers);
- coordinating over 50 sites and a goal of 9,000 participants;
- developing and implementing a public awareness and media publicity campaign;
- training and sending speakers to schools to encourage and prepare students to attend; and
- arranging bus transportation to the event for several hundred school children and their teachers.

Project time-frame is twelve-months.

15) **Project:** Community-Based Public Awareness/Education and Outreach Program and Watershed Management Facilitation Services Project

Proponent: California Green Works

Description: The project's goals are to:

- facilitate the development and implementation of a comprehensive community-based pollution prevention

public awareness/education and outreach program;
- promote local interest and participation, in particular among youth and local residents;
- provide outreach and encourage public involvement among disadvantaged neighborhoods, residents and youth to promote stewardship and understanding of urban runoff pollution;
- foster local interest and participation in local watershed management and clean-up activities;
- recruit volunteers and work with local organizations including schools to disseminate information and enhance their knowledge and understanding of their role in improving water quality and environmental protection;
- encourage a high level of stakeholder/local resident involvement under the direct leadership of community, business and civic and faith-based organizations throughout the watershed; and
- increase the availability and dissemination of information regarding water quality by focusing pollution prevention efforts on inner cities youth and residents.

Compton Creek flows though disadvantaged and highly polluted neighborhoods; yet residents are deprived of the opportunity for understanding how their individual actions impact the quality of local water bodies. The Compton Creek watershed is listed on the CWA 303(d) list of impaired waters for trash, copper, lead, pH and coliform bacteria.

Project time-frame is approximately three years.

16) **Project:** Public Involvement and Education (PIE) Program

Proponent: *Santa Monica Bay Restoration Project*

Description: The PIE program is a mini-grants program established in 1994 to encourage the development and implementation of community

outreach and educational programs focused on water quality, pollution prevention and stewardship of the Santa Monica Bay's natural resources. Through this mini-grants program, the Santa Monica Bay Restoration Project (SMBRP) encourages local communities, organizations, school and businesses to take a leadership role in educating peers and residents about the need to protect and restore the Bay. Target audiences include students grades K-12, residents, industry and small business, city personnel and multi-cultural/environmental justice communities.

PIE utilizes a competitive Request for Proposal (RFP) process to solicit and select a wide variety of innovative projects that raise awareness of Bay-related issues and that utilize a range of educational approaches. During each PIE grant cycle, SMBRP staff and the SMBRP Bay Watershed Council develop a list of the environmental topics they consider educational priorities. Once all proposals are received, a selection committee is convened to evaluate each proposal according to RFP established criteria. Those projects that score the highest and meet the SMBRP's educational goals are selected for funding. Each organization receiving PIE funds then enters into a contract administered by the SMBRP Foundation. The organizations are also expected to provide matching funds for their selected project. Each project typically lasts no longer than 18 months.

The PIE program provides much needed funding to organizations to carry out educational programs that engage and involve the public in protecting and restoring the region's water quality.

Objective: The PIE program uses public education as an innovative mechanism to achieve the pollution reduction and habitat/species protection and public awareness goals of the Basin Plan. The program educates diverse audiences about 1) the many sources of pollution; 2) how these sources reach streams, creeks and the ocean and the impact they have on the environment; and 3) what people and businesses can do to make a difference in reducing pollution.

The PIE program will:

- Provide seed monies to agencies, organizations, businesses, schools and individuals in Los Angeles County to design and implement innovative outreach projects focusing in the water quality issues facing Santa Monica Bay and its watershed;
- Increase community awareness about various sources of pollution that affect water quality;
- Improve people's understanding ways to prevent pollution from reaching and impacting local waterbodies;

- Elicit changes in public behavior, thereby reducing polluting causing habits;
- Help organizations implement successful programs by providing them with additional resources whenever necessary (e.g. data, contacts, technical information, editorial review, etc.);
- Increase the overall number of outreach programs focusing on water quality issues; and
- Create and support projects that can be implemented in other watersheds.

Time-frame: 18 months

17) **Project:** BeachKeeper Volunteer Water Quality Monitoring Program

Proponent: *Santa Monica BayKeeper*

Description: This program focuses on the Santa Monica Bay Watershed and the Ballona Creek Watershed. The water quality monitoring program will monitor storm drains discharging within the two watersheds in order to (1) measure the levels of contaminants currently found at discharge locations such as storm drains and creeks, (2) provide the appropriate agencies, municipalities, and the public with this data, and (3) conduct further water quality monitoring in order to determine potential trends and/or changes in pollution levels. The water quality data collected by the BeachKeeper program will help assess the levels of pollution from these discharges allowing regulators, municipalities, and others to target the most polluted discharges for improvement and elimination.

The Program seeks to complement the work and supplement the data of the Regional and State Water Boards and various other organizations and agencies that can be utilized in management plans and setting TMDL limits for the Santa Monica Bay. The data from the program can also be used for compliance purposes to ensure regulatory actions are being followed and that TMDLs are being implemented.

Objectives:

1) Monitor and collect water samples from over 360 discharge points along Santa Monica Bay 20 discharge points in Ballona Creek.
2) Analyze water samples collected for three types of indicator bacteria (total coliform, E. coli, and enterococcus), pH, total dissolved solids, salinity and various heavy metals.
3) Identify drains that have the most contaminated discharge.
4) Locate sources of point source pollution and develop methods to eliminate them.

5) Identify trends in water contamination within Santa Monica Bay and Ballona Creek.
6) Supplement state and federal water quality regulatory agency data.

Time-frame: One Year

18) **Project:** Dominguez Channel Integrated Watershed Assessment and Development of a Watershed Management Tool

Proponent: *Southern California Coastal Water Research Project*

Description: The study will develop a dynamic wet weather runoff model for the Dominguez Channel watershed. The objective of developing the wet weather runoff model is two-fold. The fist objective is the evaluate what proportion of the cumulative runoff load of various constituents is generated from specific land uses, sub-watersheds, or municipal entities. The second objective is to create a more sophisticated tool for assessing the effectiveness of different management actions.

Dynamic models are time-variable and can incorporate changes in water quality and flow over the course of a single storm event. This enables a more accurate estimate of runoff concentrations and mass emissions. A dynamic wet weather model uses rainfall, watershed hydrography, and runoff water quality data to predict the concentrations and loads of pollutants that runoff at the mouth of a sub-watershed. Both calibration and validation data need to be collected to develop the wet weather model. Dynamic models are being developed for the Santa Monica Bay and Los Angeles River watershed and this project will incorporate information from those studies to the extent possible, thereby increasing efficiency of all watershed modeling efforts.

The Dominguez Channel has numerous water quality concerns throughout its watershed. Water quality problems include nutrients, bacteria, metals and organic constituents amongst others. The goal of this project is to conduct a watershed assessment that will be used to develop a dynamic water quality model for the river. The assessment and dynamic water quality model can then be used by stakeholders to assist in watershed planning activities, such as watershed management plans, total maximum daily loads, 305(b) assessments, 303(d) listings and design and implementation of a watershed monitoring program.

The wet weather model for Dominguez Channel will be built in five steps:

1. creation of a project Steering Committee. The Steering Committee will define the specific management questions of the project.
2. data collection including:
   a. physical data
   b. rainfall and flow data
   c. water quality
   d. selection of sampling sites
   e. sample collection
3. development of the dynamic watershed model (Hydraulic Simulation Program-Fortran (HSPF) runoff model). The model will accommodate complex time-variable rainfall-flow interaction and will enable predictions of varying stream flows and pollutant concentrations/loads during an event
4. application of the developed HSPF model. The dynamic water quality modeling will use the pollutant input information to predict in-river water quality. The watershed monitoring surveys will be used for calibration and validation.
5. a relational database will be constructed compiling all of the results from the data collection portion of this study. All data will be publicly available and will be downloadable over the Internet. The water quality model will also be publicly available and will incorporate a geographical information system (GIS).

Time-frame: Two Years

19) **Project:** Los Angeles River Integrated Watershed Assessment and Development of a Watershed Management Tool

Proponent: *Southern California Coastal Water Research Project*

Description: The study will develop a dynamic wet weather runoff model for the Los Angeles River watershed. The objective of developing the wet weather runoff model is two-fold. The fist objective is the evaluate the proportion of the cumulative runoff load of various constituents generated from specific land uses, sub-watersheds, or municipal entities. The second objective for developing a dynamic water quality model is to create a more sophisticated tool for assessing the effectiveness of different management actions.

Dynamic models are time-variable and can incorporate changes in water quality and flow over the course of a single storm event. This enables a more accurate estimate of runoff concentrations and mass emissions. A dynamic wet weather model uses rainfall, watershed hydrography, and runoff water quality data to predict

the concentrations and loads of pollutants that runoff at the mouth of a sub-watershed. Both calibration and validation data need to be collected to develop the wet weather model. Dynamic models are being developed for the Santa Monica Bay and Los Angeles River watershed and this project will incorporate information from those studies to the extent possible, thereby increasing efficiency of all watershed modeling efforts.

The Los Angeles River has numerous water quality concerns throughout its watershed. Water quality problems include nutrients, bacteria, metals and organic constituents amongst others. The goal of this project is to conduct a watershed assessment that will be used to develop a dynamic water quality model for the river. the assessment and dynamic water quality model can then be used by stakeholders to assist in watershed planning activities, such as watershed management plans, total maximum daily loads, 305(b) assessments, 303(d) listings and design and implementation of a watershed monitoring program.

The wet weather model for Los Angeles River will be built in five steps:

1. creation of a project Steering Committee consisting of stakeholders in the watershed. The Steering Committee will define the specific management questions of the project.
2. data collection including:
    a. physical data
    b. rainfall and flow data
    c. water quality
    d. selection of sampling sites
    e. sample collection
3. development of the dynamic watershed model (Hydraulic Simulation Program-Fortran (HSPF) runoff model). The model will accommodate complex time-variable rainfall-flow interaction and will enable predictions of varying stream flows and pollutant concentrations/loads during an event
4. application of the developed HSPF model. The dynamic water quality modeling will use the pollutant input information to predict in-river water quality. The watershed monitoring surveys will be used for calibration and validation.
5. a relational database will be constructed compiling all of the results from the data collection portion of this study. All data will be publicly available and will be downloadable over the Internet. The water quality model will also be publicly available and will incorporate a geographical information system (GIS).

Time-frame: Three Years

20) **Project:**: Ventura River Watershed Monitoring Program

Proponent: *Santa Barbara ChannelKeeper* (SBCK)

Description: The SBCK wants to secure funding so that they can continue to organize, lead and educate community volunteers, and continue to collect water quality data at 14 established sites, spanning 16 miles of the Ventura River itself, and 10 miles of tributaries. The monitoring program will be used to establish baseline information on a watershed level; to establish a trained volunteer monitoring base; and to locate previously unidentified point sources of pollution. The SBCK's project will monitor the 14 established sites at monthly intervals and produce quarterly reports. SBCK will provide pollutant load data needed in developing and complying with TMDLs and will lead to the overall restoration and protection of beneficial uses.

Staff and volunteers comprising the Stream Team will monitor the 14 established sites for temperature, dissolved oxygen, turbidity, conductivity/total dissolved solids, pH, bacteria, nutrients and flow.

The information collected will provide baseline information that can be used to monitor major changes being proposed for this river system. Chief among them is the Matilija Dam removal project. The Matilija Dam is located high up in the Ventura River watershed. Studies are underway to determine the cost and feasibility of removing it. The project's monitoring sites are located above and below the dam. Once the dam is removed, water and stream quality will change dramatically. The data collected through this monitoring project is expected to provide information for comparison purposes. The data obtained through this monitoring program will also be very useful in the TMDL-development process.

Time-Frame: One Year